

HOW I DO IT

Simple Methods for Localization of Small Benign Stromal Tumors of the Stomach Under Endoscopy

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INTRODUCTION

Small benign submucosal stromal-cell tumors of the stomach do not usually give macroscopic or palpable evidence on the surface of the organ intraoperatively and therefore create problems concerning their exact location. Traditionally, local surgical excision has been the diagnostic and therapeutic modality for both symptomatic tumors and those of questionable malignant potential [1].

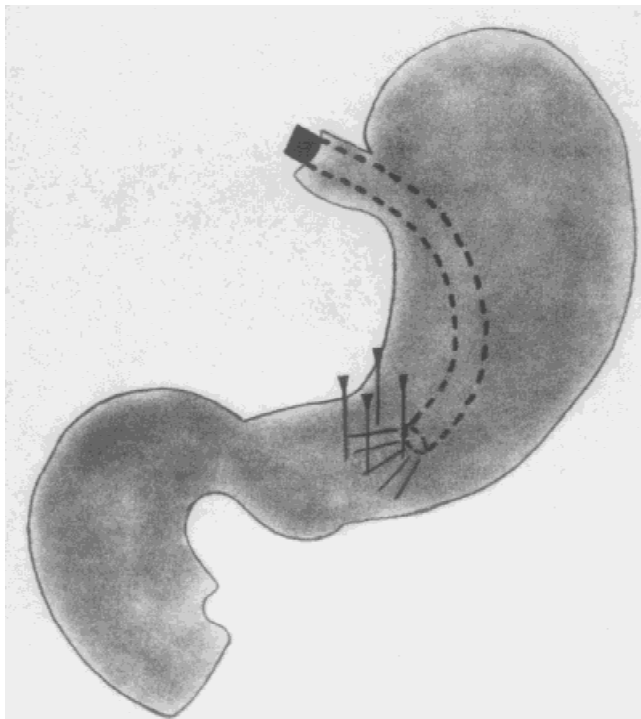


Fig. 1. Under endoscopic vision, the four needles are inserted, outlining an area that includes the benign lesion and a sufficient margin.

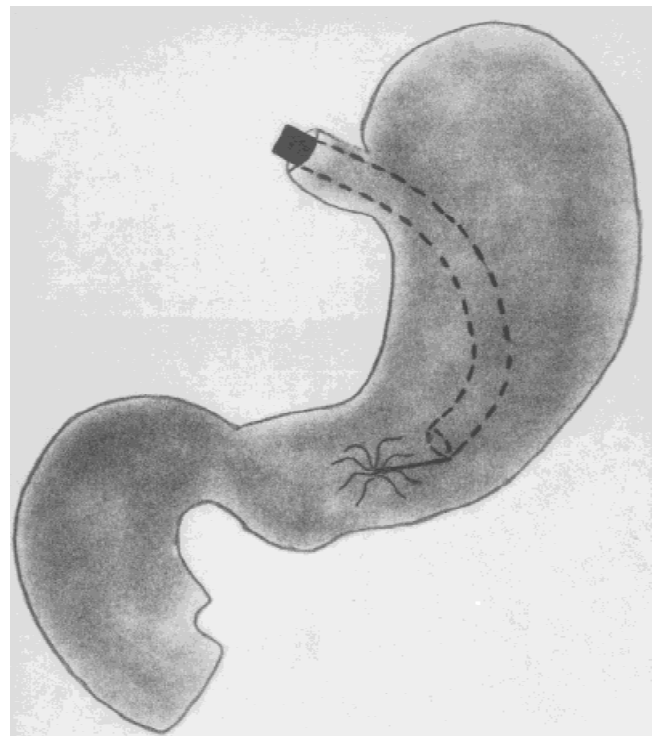


Fig. 2. The endoscopist pulls the tumor from inside the stomach, creating an invagination. This indentation created in the serosa represents the location of the mass.

The simultaneous gastroscopic detection of the tumor and intraoperative ultrasound can demonstrate the lesion. If local excision has been scheduled, exact localization of the lesion is necessary. The endoscope light is diffuse,

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even in a dark operating room and thereafter it is difficult for the surgeon to determine the precise location, in order to avoid an unnecessarily wide excision. Through the following simple methods, we can confirm the exact tumor borders under direct vision with the endoscope.

PROCEDURE

Initially, meticulous palpation of the stomach and all the intrabdominal organs is required. The endoscopist visualizes the lesion. Under the endoscopist's instructions, the surgeon inserts, one by one, four needles in all directions. These outline an area that includes the tumor with a sufficient margin (Fig .1). With a surgical knife or cautery, the above outlined area is excised and sent for

frozen section and permanent biopsy. The stomach wall is closed in two layers by using vicryl 2-0 sutures [2]. An alternative method is for the endoscopist to pull the tumor from inside, creating an invagination. This part of the serosa is observed by the surgeon and represents the tumor location (Fig .2).

REFERENCES

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2. Zografos GC, Martis K, Morris DL: Laser Doppler Flowmetry in evaluation of cutaneous wound blood flow using various suturing techniques. *Ann Surg* 1992;215:266-268.